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130-00-103  
30-00-102  
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21 Apr 1985  
Ward 6/12/85

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

\* \* \* \* \*

Case No. Boots 12 Cont II

HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

Sir:

This is a request for filing a Continuation/Divisional application, under 37 CFR 1.60 of pending prior application Serial No. 365,285, filed April 5, 1982, of James E. Jeffery, Antonin Kozlik, and Eric Charles Wilmshurst for THERAPEUTIC AGENTS

1. Enclosed is a copy of the prior application as originally filed and an affidavit or declaration verifying it as a true copy.

2. Please prepare a copy of the prior application.

3. The filing fee is calculated below.

Claims as Filed, less any Claims Canceled by Amendment

FOR	NUMBER FILED	NUMBER EXTRA	RATE	BASIC FEE \$300/\$150
Total Claims	33 - 20 =	13 X	10.00	130.00
Independent Claims	4 - 3 =	1 X	30.00	30.00
04/25/85 725206	1 101		300.00 CK	
<b>TOTAL FILING FEE</b>				<b>\$ 460.00</b>
04/25/85 725206	1 103		130.00 CK	
04/25/85 725206	1 102		30.00 CK	

4. The Commissioner is hereby authorized to charge any further or additional fees which may be required (due to any omission, deficiency, or defect in the attached check, or otherwise), or to credit any overpayment, to Deposit Account No. 08-3220.

5. A check in the amount of \$ 460.00 is enclosed.  
Check No. 54474.

6. Cancel Claims 25-41, 50, and 51.

7. Amend the specification by inserting before the first line the sentence:

91  
This is a continuation of application  
Serial No. 365,285, filed April 5, 1982.

8. Transfer the drawings from the prior application to this application and abandon said prior application as of the filing date accorded this application. A duplicate copy of this sheet is enclosed for filing in the prior application file.

9. The application for Letters Patent for U.S. Serial No. 365,285 is assigned to THE BOOTS COMPANY PLC Recorded February 23, 1983, Reel 4100, Frames 851-852.

10. The power of attorney in the prior application is to:  
GORDON W. HUESCHEN, Registration No. 16,157  
715 American National Bank Building  
Kalamazoo, Michigan 49007+3949  
Telephone: (616)382-0030  
Address all future communications to GORDON W. HUESCHEN.  
a.  The power appears in the original papers of the prior application.  
b.  Since the power does not appear in the original papers, a copy of the power in the prior application is enclosed.

11. A further Preliminary Amendment is also attached to be filed as soon as a Serial Number and Filing Date are accorded this application.

12. Applicants hereby claim the right of priority of British application Serial No. 81.10709 of April 6, 1981, a copy of which is on file in the prior application, Serial No. 365,285.

13. NOTICE RE: FEES in triplicate.

14. Declaration of William Roger Buckett executed 15th day of October, 1984.

15. PTO form 1449 (three pages) with attached copy of British Patent 973,887 (Hoechst), twelve pages

Respectfully submitted,

*Gordon W. Hueschen* 3/11/157

*G.W. Hueschen*  
Attorney

Dated: April 19, 1985.

*602* 715 American National Bank Building  
*741* Kalamazoo, Michigan 49007 + 3949  
(616)382-0030 GWH: ju

\* \* \* \* \*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

\* \* \* \* \*

Applicants: James E. Jeffery, et al.

Serial No.:

Filed :

Title : THERAPEUTIC AGENTS

Art Unit : 124

Examiner : P. Shaver

\* \* \* \* \*

HON. COMMISSIONER OF PATENTS AND TRADEMARKS  
WASHINGTON, D.C. 20231

PRESENTATION OF PRIOR ART STATEMENT UNDER 37 CFR 1.97 and 1.98

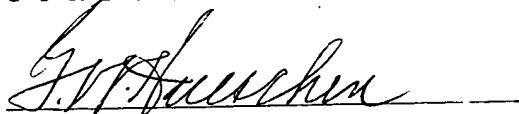
Sir:

Enclosed herewith please find Prior Art Statement submitted under 37 CFR 1.97 and 1.98 for filing in the above-identified application, consisting of five (5) pages.

Entry thereof into the file of the above-identified application is respectfully solicited.

Respectfully submitted,

GORDON W. HUESCHEN



Dated: April 18, 1985.

715 American National Bank Bldg.  
Kalamazoo, MI 49007-3949  
616/382-0030 ju

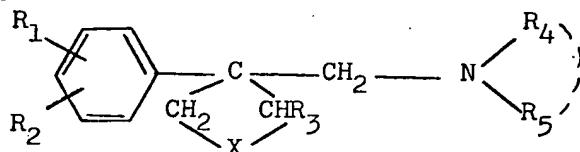
Enclosures: Prior Art Statement (five pages)

P.S. Copies of the five (5) listed prior art are not enclosed herewith. The originals of said prior art are in the file of the parent application Serial No. 365,285. GWH (except Hoechst British Patent 973,887 - copy herewith)

PRIOR ART STATEMENTPatent References

1. British Patent 973887 - Farbwerke Hoechst Aktiengesellschaft.

This specification discloses and claims phenyl-cycloalkane-methylamines of formula



in which R<sub>1</sub> and R<sub>2</sub> each represents a hydrogen atom or a hydroxy, methyl or methoxy group, or together represent a methylene-dioxy group, X together with the CH<sub>2</sub> and CHR<sub>3</sub> groups and the adjacent carbon atom represent a cycloalkane ring containing 3 to 5 carbon atoms, R<sub>3</sub> represents a hydrogen atom or an alkyl group containing 1 to 3 carbon atoms, R<sub>4</sub> and R<sub>5</sub> each represents a hydrogen atom, a saturated or unsaturated aliphatic hydrocarbon group containing up to 4 carbon atoms or a cycloalkyl group containing 4 to 6 carbon atoms or together with the nitrogen atom represent a saturated ring which may be interrupted by a further hetero atom, and acid addition salts of these compounds.

This reference therefore discloses compounds having cyclopropyl, cyclobutyl and cyclopentyl ring systems. The compounds (X=CH<sub>2</sub> and R<sub>3</sub>=H) containing a cyclobutyl ring system which are specifically disclosed are listed below in which the column headings utilise the nomenclature in the reference. The reference symbol in parenthesis at the head of each column is the corresponding reference as used in the present application.

Claim No.	Example No.	R <sub>1</sub> (R <sub>5</sub> )	R <sub>2</sub> (R <sub>6</sub> )	R <sub>4</sub> (R <sub>3</sub> )	R <sub>5</sub> (R <sub>4</sub> )
7	2(a)	H	H	H	H
8	2(b)	H	H	<u>sec</u> -Bu	H
9	2(c)	H	H	Et	H
10	3(a)	H	3-OMe	H	H
11	3(b)	H	3-OMe	Et	H
12	3(c)	H	3-OMe	Et	Et

13	3(d)	H	3-OMe	<u>sec</u> -Bu	H
14	3(e)	H	3-OMe	$-(CH_2)_4-$	
15	Example 3	{	H	Et	H
16	page 7	{	H	Et	Et
17	lines	{	H	<u>sec</u> -Bu	H
18	57 to 67		H	3-OH	$-(CH_2)_4-$

Disclosed by name at page 3 lines 24 to 29 but not claimed or specifically described in the Examples

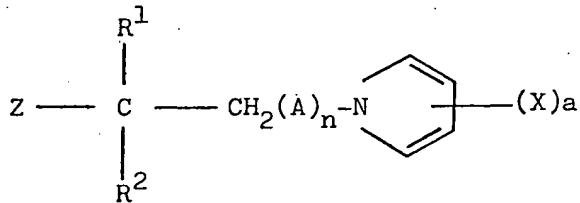
-	lines 24 to 25	4-Me	H	H	H
-	lines 26 to 27	4-OMe	3-OMe	H	H
-	lines 28 to 29	4-Me	2-Me	H	H

The compounds listed above are claimed to have valuable central-analeptic properties (page 5 lines 53 and 54). As evidence of this, the Table on page 5 lists results of a test with five compounds one of which is the product of Example 2(a) shown above. This test is in no way indicative of antidepressant activity as claimed for the compounds of the present invention.

It should be noted that the compounds listed above all contain a  $-CH_2-$  group in the  $\alpha$ -position to the nitrogen atom, whereas the claims of the present invention are restricted to compounds in which the group  $\alpha$  to the nitrogen is  $-CR_1R_2-$  in which  $R_1$  must be other than H.

## 2. British Patent 1530172

This specification discloses substituted imidazoles of general formula

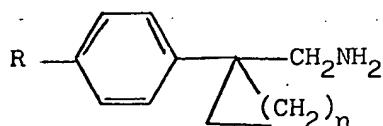


which are used in agriculture as fungicides. A wide range of values for Z, R<sup>1</sup>, R<sup>2</sup>, A, X, n and a are claimed including inter alia the case where Z is phenyl, phenyl substituted by alkyl biphenyl or naphthyl (page 2 lines 34-36), R<sub>1</sub> and R<sub>2</sub> are joined together and together with the carbon atom form a C<sub>3</sub>-C<sub>8</sub> cyclo-alkyl residue (page 2 lines 21 and 22), n=0 (page 2 line 29), X is halo, nitro or C<sub>1</sub>-C<sub>4</sub> alkyl (page 2 line 26) and a is 0, 1 or 2 (page 2 line 28). Compounds having this combination of values form a very small part of the invention claimed and no specific examples are given of compounds which have a cyclobutyl residue. It should also be noted that compounds in this reference in which n=0 have a -CH<sub>2</sub>- group  $\alpha$  to the nitrogen atom and that the claims of the present application require that in the group -CR<sub>1</sub>R<sub>2</sub>-, which is in the  $\alpha$ -position with respect to the nitrogen atom of the present invention, the group R<sub>1</sub> cannot be hydrogen. The compounds of the reference are disclosed as having fungicidal activity which gives them utility in the field of agriculture. There is no suggestion of any other uses for the compounds and certainly no indication that they would be useful as pharmaceuticals.

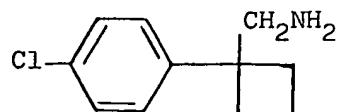
#### Literature References

1. V.P. Arya and S.J. Shenoy- Synthesis of New Heterocycles: Part XV- Synthesis of Novel Cyclic and Acyclic Sulphamides. Indian Journal of Chemistry, Volume 14B, pages 766 to 769 (1976). Chemical Abstracts reference 87 23236s

In this paper there is disclosed compounds of formula



of which one specific compound is



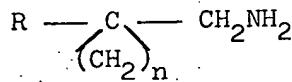
This compound is referred to in the paper by reference to formula XVIII (b). It is disclosed as an intermediate in the production of the sulphonamides mentioned in the title of the paper. This compound does not fall within the scope of the claims of the present application as the group in the  $\alpha$ -position with respect to the nitrogen atom is  $-\text{CH}_2-$ . No pharmaceutical activity is disclosed for this compound. The paper states that some of the compounds disclosed, but not XVIII (b), had biological activity but specifically states that "[n]one of the other compounds exhibited any outstanding biological activity".

2. A.L. Mndzhoyan, V.E. Badalyon and A.G. Samodurova. Substituted acetic acids XXXII. Aminoesters of 1-( $\alpha$ -naphthyl) cycloalkane-1-carboxylic acids and 1-( $\alpha$ -naphthyl) cycloalkane-1-methyl guanidines.

Armyanskii Khimichesdii Zhurnal, Volume 29, Number 2, pages 194 to 199 (1976).

Chemical Abstracts Reference 85 32678y

This paper discloses compounds of formula VI



in which R is  $\alpha$ -naphthyl and n is 2 to 5. When n=3 the resulting compound is 1-( $\alpha$ -naphthyl) cyclobutylmethylamine. The production of this compound is described at the centre of page 4 of the English translation and its characterising properties are listed in Table 3. No biological activity is disclosed for this compound which is an intermediate in the production of the guanidines mentioned in the title. This compound does not fall within the scope of the claims of present application because the group in the  $\alpha$ -position with respect to the nitrogen atom is  $\text{CH}_2$ .

Summary

None of the compounds disclosed in the above references fall within the scope of the claims of the present application as there is no disclosure of substitution on the carbon atom which is in the  $\alpha$ -position with respect to the nitrogen atom. None of the compounds disclosed has antidepressant activity.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

\* \* \* \* \*

Applicant s : James E. Jeffery, Antonin Kozlik, and Eric Charles Wilmshur  
For : THERAPEUTIC AGENTS

Honorable Commissioner of Patents

Washington, D. C. 20231

CERTIFICATION AND DECLARATION

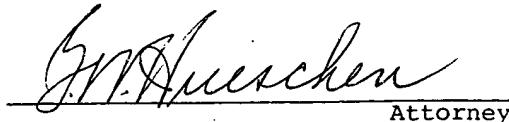
Sir:

The undersigned, attorney of record in U.S. Patent Application Serial No. 365,285, filed April 5, 1982, hereby certifies and declares that the attached copy, consisting of forty-nine (49) pages of specification, fourteen (14) pages of claims bearing Claims 1 through 52, inclusive, and the Declaration by the Inventors, is a true copy of said application Serial No. 365,285 as originally filed in the United States Patent Office.

The undersigned further declares that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

GORDON W. HUESCHEN

  
\_\_\_\_\_  
Attorney

715 American National Bank Bldg.  
Kalamazoo, Michigan 49007+3949  
(616) 382-0030

Enclosure: True Copy of Application Serial No. 365,285  
Return Postal Card

Dated: April 19, 1985.

Bts 12 Cont II



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

\* \* \* \* \*

Applicants: James E. Jeffery, et al.

Serial No.:

Filed :

Title : THERAPEUTIC AGENTS

Art Unit : 124

Examiner : P. Shaver

\* \* \* \* \*

HON. COMMISSIONER OF PATENTS AND TRADEMARKS  
WASHINGTON, D.C. 20231

Attn: Finance Dept.

NOTICE RE: FEES

Sir:

The Commissioner is hereby authorized to charge any further or additional fees which may be required (due to any omission, deficiency, or defect in any attached check, or otherwise), or to credit any overpayment, to Deposit

Account No. 08-3220 as Order No. B12-II.

Respectfully submitted,

GORDON W. HUESCHEN



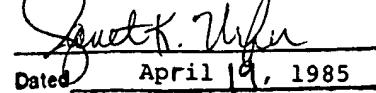
Dated: April 19, 1985.  
715 American National Bank Bldg.  
Kalamazoo, MI 49007-3949  
616/382-0030 ju

Attachment: two copies of this paper

**CERTIFICATE OF MAILING  
UNDER 37 CFR 1.8 (a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on April 19, 1985.

GORDON W. HUESCHEN, Attorney



Dated April 19, 1985